

REMARKS

The Examiner's Office Action of June 19, 2006 has been received and its contents reviewed. Applicants would like to thank the Examiner for the consideration given to the above-identified application.

By the above actions, claims 1, 14, 19, 24 and 31 has been amended and claims 6-13 have been cancelled. Accordingly, claims 1-5 and 14-43 are pending for consideration, of which claims 1, 14, 19, 24 and 31 are independent. In view of these actions and the following remarks, reconsideration of this application is now requested.

Referring now to the detailed Office Action, claims 1-5 and 14-43 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Specifically, the Examiner asserts that in the phrase "the first processing chamber is capable of generating a plasma for performing dry etching a portion of the layer" the limitation "the layer" is vague. Further, the Examiner asserts that claims 14, 19, 24 and 31 contains grammatical or typographical errors. In response, Applicants have amended claims 1, 14, 19, 23 and 31, as shown above, to further specify the layer as the layer formed with a polymeric material and to correct all the grammatical and typographical errors as suggested by the Examiner. Further, Applicants have amended the recitation "each of substrates" in claims 1, 14, and 24 as "each of the plurality of substrates". Still further, Applicants have amended the recitation "each of substrate holders" in claims 19 and 31 as "each of the plurality of substrate holders". Finally, Applicants have amended the recitation "a film second" in claim 19 as "a second film".

Claims 14, 15, 18, 19, 20, 23, 39 and 40 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Yamazaki I (EP 1,071,117 – hereafter Yamazaki I) taken in view of Tanabe (U.S. Patent No. 6,132,280 – hereafter Tanabe), Edwards (U.S. Patent No. 5,259,881 - Edwards) and Makiguchi (U.S. Patent No. 5,850,071 – hereafter Makiguchi), and optionally in further view of Burroughes (U.S. Patent No. 6,558,219 – hereafter Burroughes).

Further, claims 16 and 21 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Yamazaki I, taken in view of Tanabe, Edwards and Makiguchi, and optionally in further view of Burroughes, and taken in further view of Spahn (U.S. Patent No. 6,237,529 – hereafter Spahn) or Kamata (JP 11-229123 – hereafter Kamata).

Still further, claims 17, 22, 24, 25, 27, 29-32, 34, 36, 37, 41 and 42 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Yamazaki I, taken in view of Tanabe, Edwards and Makiguchi, and optionally in further view of Burroughes, and taken in further view of Yamamoto (U.S. Patent No. 6,179,923 – hereafter Yamamoto).

Still further, claims 28 and 35 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Yamazaki I, taken in view of Tanabe, Edwards and Makiguchi, and optionally in further view of Burroughes, and taken in further view of Yamamoto, and taken in further view of Spahn or Kamata.

Still further, claims 24, 25, 31, 32, 41 and 42 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Yamazaki I, taken in view of Tanabe, Edwards and Makiguchi, and optionally in further view of Burroughes, and taken in further view of Yamazaki (U.S. Patent Publication No. 2001/0006827 – hereafter Yamazaki II).

Still further, claims 25, 26, 32 and 33 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Yamazaki I, taken in view of Tanabe, Edwards and Makiguchi, and optionally in further view of Burroughes, and in view of Yamazaki II, and taken in further view of Yamada (U.S. Patent Application Publication No. 2002/0076847 – hereafter Yamada), Bennett (U.S. Patent No. 2,435,997 – hereafter Bennett) and/or Peng (U.S. Patent No. 6,641,674 – hereafter Peng).

Still further, claims 1, 2, 4, 5, 38 and 43 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Yamazaki I, taken in view of Yamazaki II, Spahn and Van Slyke (U.S. Patent Application Publication No. 2003/0101937), and taken in further view of Eida (U.S. Patent No. 6,633,121 – hereafter Eida), Edwards and Makiguchi, and optionally in further view of Burroughes.

Finally, claims 2 and 3 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Yamazaki I, taken in view of Yamazaki II, Spahn and Van Slyke, and taken in further view of Eida, Edwards and Makiguchi, and optionally in further view of Burroughes, and taken in further view of Yamada, Bennett and/or Peng.

On page 2, line 14 of the Office Action, independent claims 14 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamazaki I, taken in view of Tanabe, Edwards, and Makiguchi, and optionally in further view of Burroughes. The Examiner alleges that chamber 107 of Yamazaki I is inherently “capable of generating a plasma for

performing dry etching to move a portion of the layer” in view of oxygen plasma process of Yamazaki I. However, although Yamazaki I discloses that an anode formed over a substrate is oxidized in the processing chamber 107 before forming high-molecular EL layer in order to match the junction surface potential of the transparent conductive film with the surface potential of the high-molecular EL layer (see paragraphs 0024, 0071 to 0072 of Yamazaki I), Yamazaki I appears to fail to teach, disclose or suggest the claimed feature in claims 14 and 19 directed to “generating a plasma for performing dry etching to remove a portion of the layer formed with a polymeric material”.

Further, referring to Burroughes, although the reference discloses that the energy level of PEDOT:PSS is improved by exposing a PEDOT:PSS layer to oxygen plasma (see column 8, lines 19 to 57), Burroughes appears to fails to teach the claimed feature “generating a plasma for performing dry etching to remove a portion of the layer formed with a polymeric material”. Moreover, Applicants respectfully assert that the remaining cited references also fail to teach, disclose or suggest the claimed feature “generating a plasma for performing dry etching to remove a portion of the layer formed with a polymeric material”.

On page 6, line 16 of the Office Action, independent claims 24 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamazaki I (EP1,071,117), taken in view of Tanabe (6,132,280), Edwards (5,259,881), and Makiguchi, and optionally in further view of Burroughes, and taken in further view of Yamamoto. In response, Applicants respectfully assert that Yamamoto also fails to teach, disclose or suggest “generating a plasma for performing dry etching to remove a portion of the layer formed with a polymeric material”. Therefore, for similar reasons to claims 14 and 19, Applicants respectfully assert that this rejection is also not appropriate.

On page 9, line 14 of the Office Action, independent claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamazaki I, taken in view of Yamazaki II, Spahn and Van Slyke, and taken in further view of Eida, Edwards and Makiguchi, and optionally in further view of Burroughes. However, Applicants respectfully assert that Yamazaki II, Spahn, Van Slyke, and Eida also fail to teach, disclose “generating a plasma for performing dry etching to remove a portion of the layer formed with a polymeric material”. Therefore, for similar reasons to claims 14 and 19, Applicants believe that this rejection is not appropriate.

The requirements for establishing a *prima facie* case of obviousness, as detailed in MPEP § 2143 - 2143.03 (pages 2100-122 - 2100-136), are: first, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference to combine the teachings; second, there must be a reasonable expectation of success; and, finally, the prior art reference (or references when combined) must teach or suggest all of the claim limitations. As the cited prior art references are deficient, as discussed above, the combination in the obviousness rejections is improper.

The arguments and amendments set forth above in relation to the rejections of the independent claims are also applicable to the rejection of their respective dependent claims. In order to keep the prosecution history compact, Applicants will not address each and every rejection of the dependent claims. Applicants reserve the right to do so in the future as necessary.

In view of the amendments and arguments set forth above, Applicants respectfully requests reconsideration and withdrawal of all the pending rejections.

While the present application is now believed to be in condition for allowance, should the Examiner find some issue to remain unresolved, or should any new issues arise, which could be eliminated through discussions with Applicants' representative, then the Examiner is invited to contact the undersigned by telephone in order that the further prosecution of this application can thereby be expedited.

Respectfully submitted,



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